

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/SE 2003/002091

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7: H01P 1/203, H01P 5/18, H01P 7/08

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: H01G, H01L, H01P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ, INSPEC

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
|-----------|--|-----------------------|
| A         | D. Kuylenstierna, A. Vorobiev,<br>G. Subramanyam and S. Gevorgian, "Tuneable<br>Electromagnetic Bandgap Structures Based on<br>Ferroelectric Films",<br>IEEE Antennas and Propagation Society,<br>International Symposium, Digest, 22-27 June 2003,<br>Vol. 4, pages 879-882<br>-- | 1-28                  |
| A         | D. Kuylenstierna, A. Vorobiev,<br>G. Subramanyam and S. Gevorgian,<br>"Tuneable Electromagnetic Bandgap Structures Based<br>on Ba 0,25 Sr 0,75 TiO 3, Parallel-Plate<br>Varactors on Silicon Coplanar Waveguides",<br>Proc., Vol. 3, pages 1111-1114, 7-9 Oct. 2003<br>--          | 1-28                  |

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

\* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

4 August 2004

Date of mailing of the international search report

10-08-2004

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
|-----------|--|-----------------------|
| A         | D. Kuylenstierna, A. Vorobiev,<br>G. Subramanyam and S. Gevorgian,<br>"Tunable Electromagnetic Bandgap Performance of<br>Coplanar Waveguides periodically Loaded by<br>Ferroelectric Varactors",<br>Microwave and Optical Technology Letters, Vol.<br>39, No. 2, October 2003, pages 81-86<br><br>-- | 1-28                  |
| A         | WO 02089250 A1 (PLASMA ANTENNAS LIMITED),<br>7 November 2002 (07.11.2002), see the whole<br>document<br><br>--   | 1,2,25,26             |
| A         | WO 0184663 A1 (KOREA ADVANCED INSTITUTE OF SCIENCE<br>AND TECHNOLOGY), 8 November 2001 (08.11.2001),<br>see the whole document<br><br>--<br>-----  | 1,2,25,26             |

# INTERNATIONAL SEARCH REPORT

Information on patent family members

03/07/2004

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|    |          |    |            |    |           |            |
|----|----------|----|------------|----|-----------|------------|
| WO | 02089250 | A1 | 07/11/2002 | EP | 1384284 A | 28/01/2004 |
|    |          |    |            | GB | 0110298 D | 00/00/0000 |

|    |         |    |            |    |              |            |
|----|---------|----|------------|----|--------------|------------|
| WO | 0184663 | A1 | 08/11/2001 | KR | 2002035976 A | 16/05/2002 |
|----|---------|----|------------|----|--------------|------------|